

**“Critical Evaluation of the Employee’s Satisfaction on the Medical Facilities Provided by the Indian Railways with Reference to South East Central Railway, Bilaspur”**

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**Abstract:** Indian Railways: is owned and operated by the Government of India through the Ministry of Railways. It is one of the world’s largest Railway network. It carries more than 23 million passengers in a day and 8.397 million tons of freight in a year. Indian Railway is also the world’s seventh largest employer; it has 1.376 million employees (2013). It is divided into 16 Zones, which are under the control of the General Managers and the zones are further subdivided into divisions. The divisions are under the control of Divisional Railway Managers, there are 68 divisions in Indian Railways. The Indian Railways provides proper health care to its employees and also the passengers. Indian Railway health care delivery system is providing Industrial medicine as per the need of the Railways and also providing medical treatment to Railway beneficiaries. The system is a dynamic system which makes suitable changes in proper time to provide proper medical treatment to Railway beneficiaries. This study has been conducted to get a bird’s eye view about the medical facility provided by the Indian Railways and the level of satisfaction of its employees.

**Key Words:** Health Care in Indian Railways, Satisfaction of the Railway employee.

**Introduction:**

A number of studies have been conducted within the health care industries in abroad, where it was revealed that competition impacts several relational perspectives. Several studies examined the relationship between competition and quality of health care, they are Zwanziger and Melnick, 1996; Enthoven, 1993; Kassirer, 1995; Chassin, 1997 Between competition and health care system costs Robinson and Luft, 1985; Robinson and Luft, 1987; Robinson and Luft, 1988; Zwanziger and Melnick, 1996; Zwanziger and Melnick, 1988; Robinson, 1991. Between competition and patient satisfaction Miller, 1996; Brook and Kosecoff, 1988. These studies show that competition is capable of increasing value for customers over time. Quality and process improvements lead to decreased costs, which in turn results in increased customer satisfaction.

The Health care in India can be seen in different perspectives, here we have discussed a bit on national perspective and that of the Indian Railways.

**National Perspective:**

In the field of health care in India, the private sector is the major health care provider. The Government of India spends about 4% of GDP in health care. The major health care expenses are paid out of the pockets by the patients and their families, rather than through insurance as in other developed countries. This has resulted the households to incurr Catastrophic Health Expenditure (CHE) that threatens a household’s capacity to maintain the basic standard of living. It has been found that about only 17% of India’s population is having some form of health insurance. Public health care is free for those below the poverty line. According to National Family Health Survey-3, the private medical sector remains the primary source of

health care for 70% of households in urban areas and 63% of the households in rural areas. Dependence on public and private health care sector varies significantly between states.

### **Health Care in Indian railways:**

During the early period when the railway tracks were laid and the major Railway Stations became the hub of all the activities, many Railway personnel were posted in the different work places in the interest of the Railways to perform the basic activities of the transportation of freight and passengers. In order to provide better medical facilities to the Railway employees the Railway Health Care facility started, which has become an important place in the life of the Railway employees and their family members. The Indian Railways have a number of Central hospitals, Divisional hospitals, Sub-divisional hospitals looked after by the Doctors, Paramedical staffs, Specialist Doctors, Dental surgeon and visiting specialists.

### **Operational Definitions:**

**Identity Cards:** Bearing photo of the Railway employee and details of family of the Railway employee.

**Authorized Medical Officer:** Medical Officer posted in a health unit / hospital

**Medical Certificate:** Normally employee has to take a sick memo from the office concerned and report to Doctor. Doctor examines the employee and may issue a sick certificate if he feels so.

### **Abbreviations:**

CMD- Chief Medical Director,

ACMD- Additional Chief Medical Director,

MNC- Multinational Corporation

RELHS- Retired Employees Liberalized Health Scheme

SECR- South Eastern Central Railway

### **Objectives of Study:**

1. To analyze the existing medical facilities available in the Hospitals of Indian Railway with reference to the Central Hospital, Bilaspur.
2. To study the employees satisfaction regarding the medical facilities in the Central hospital Bilaspur.
3. To analyze the quality of the service provided.

**Literature Review:** In a survey conducted by Great Place to Work Institute and The Economics Times, seven hundred companies across 20 sectors were surveyed. The responses of 1.8 lakh employees showed that MNCs were better than the Indian Companies in terms of best work places. IT companies accounted for a fourth of the top best work places, making it preferred choice among job seekers. A friendly working environment, special health care facilities, flexible work hours, work from home options, women-friendly policies and support among the team members keep employees highly motivated in these 10 companies.

In the paper Srinivasan. R “Health care in India – Vision 2020, Issues and Prospects”, states that finally it is proper to remember that health is at bottom an issue in justice. It is in this context that we should ask the question as to how far and in what way has politics been engaged in health care? The record is disappointing. Most health sector issues figuring in political debate are those that affect interest groups and seldom central to choices in health care policies. For instance conditions of service and reward systems for Government doctors have drawn much attention often based on inter service comparison of no wider interest. Inter-system problems of our plural medical care have drawn more attention from courts than from politics. Hospital management and strikes, poor working of the MCI and corruption in

recognition of colleges, dramatic cases of spurious drug supply etc have been debated but there has been no sustained attention on such issues as why malaria recrudescence is so common in some parts of India or why complaints about absence of informed consent or frequent in testing on women, or on the variations in cost and availability of essential drugs or for combating epidemic attacks in deprived areas seldom draw attention. The far reaching recommendations made by the Hathi Committee report and or the Lentin Commission report, have been implemented patchily. The roles to be assigned to private sector in medicine, the need for a good referral system or the irrationality in drug prescriptions and sue have seldom been the point of political debate. Indeed the lack luster progress of MNP over the Plans shows political disinterest and the only way for politics to become more salient to the health of the poor and the reduction of health inequalities is for a much greater transfer of public resources for provision and financing - as has happened in the West, not only in UK or Canada but in the US itself with a sizable outlay on Medicaid and Medicare.

### **Methodology:**

This study identified the satisfaction level of the employees/ beneficiaries from the medical facilities provided by the Indian Railway with reference to South East Central Railway. The study is based on the empirical research. Determinants are identified as the behavior of the Doctors and Para medical staff with the employees, availability of medicines and various other basic amenities. The current study utilizes a non-probability sampling technique that is convenience sampling. Convenience sampling is a sampling technique that obtains and collects the relevant information from the sample or the unit of study that are conveniently available (Zikmund, 1997). Convenience sampling is normally used for collecting a large number of completed surveys speedily and with economy (Lym et al., 2010). The behavior of the Doctors and the Para medical staff is considered to be most important factor by the employees and vice versa. This factor determines the satisfaction level of the Railway employee in Indian Railway as a whole. The study thus provides a direction to the railway administration on the condition of the Railway hospital, relation of the Doctors with the employees, availability of the medicines and waiting time of the employee for his treatment, and their satisfaction. The present study conducted on the central hospital of SEC Railway, Bilaspur taking it as a unit of study. The employees were interviewed as a unit sample. The study covers a sample of 100 respondents and the survey was conducted in the central hospital (both indoor and outdoor) of SECR, Bilaspur, where the employees are given medical treatment, from March– April 2016. Sampling was done by interviewing randomly selected employees, at different time of the day and in different locations. The questionnaires were phrased in the form of statement on a convenience scale, rating 1 – 5 scale in the form of magnitude estimation, as they approximate the properties of interval data. Here this scale is used as statistical tools and found to be appropriate for interval data and to analyze these data with the underlying assumption that values given on such a rating scale are considered to have equal intervals, Where 1 indicates poor rating and 5 signifies the outstanding rating. Hypothesis testing approach was used to determine the satisfaction differentials. One way ANOVA and independent sample t-test were used in hypothesis testing. Percentage and mean score analysis were used in the present study.

### **Medical Infrastructure Available:**

Administrative: Given are the administrative infrastructures available to run the vast health care system, at different level.

The apex body in Health Directorate headed by Director General Railway Health Services at Railway Board, New Delhi.

In the Zonal level: There are 16 Zonal Railways. Each Zonal Railway is headed by one Chief Medical Director (CMD) with Chief Health Director and 2 to 3 Addl CMDs or Dy CMDs .

At the Divisional level: Headed by Chief Medical Superintends. In some places Senior Medical superintendents are working as in-charge.

Railway Hospitals: There are total 125 Railway hospitals, with 13963 numbers of indoor beds in Indian Railways. 133 number of Private Recognized Hospitals.

Table No. 1 South Eastern Central Railway breakup of the Hospitals

Sr. No	Name of Railway Hospital	Number of beds
i	Central Hospital, Bilaspur	150
ii	Divisional Hospital, Raipur	50
iii	Sub-Divisional Hospital, Nainpur (Nagpur Division)	10
iv	Sub Divisional Hospital, Bhilai Marshalling Yard (Raipur Division)	30
v	Sub Divisional Hospital, Shahdol (Bilaspur)	10
Total		250

Table No. 1 showing the breakup of the Hospitals of SECR

In South East Central Railway breakup of the Hospitals are as given in the Table no.1 above.

Number of Doctors available in Indian Railways: There are 2506 numbers of Doctors employed by the Indian Railways. The number of General duty Medical Officers and specialist Doctors are 2461, and numbers of Dental Surgeon are 45, besides which there are 575 numbers of visiting specialists in the Railway Hospitals.

### **Aims and Objectives of the Hospitals of Indian Railways**

Two important functions are required to be performed by the Indian Railway Health Care Delivery System, they are

1. Functions related to industrial medicine.

i) The various functions are to attend Railway accident and other untoward incidences.

ii) To provide emergency medical treatment to travelling sick passengers.

iii) Pre-employment Medical examination to allow only fit and suitable candidates to join services.

iv) Periodic Medical Examination of serving employees to allow fit person to continue in those jobs which are related to safe running of the trains.

v) Medical Boards and other medical certification of serving employees.

vi) Control on loss of man-days on account of sickness (both normal and IOD). It is kept under control by medical officers.

vii) Safe Water supply at Railway Stations by maintaining a constant vigil over the well laid down system of reporting and to take corrective measures for unsatisfactory reports.

viii) Safe food supply at Railway Stations are checked by carrying out regular inspection of kitchen and food stalls, regular health checkup of the food handlers, collection of food samples under PFA Act, collection of food samples under quality control system.

ix) Ensuring Factory Act: Medical first aid posts are provided to all of Indian Railways as per Factories Act. There are 84 such factories in Indian Railways.

x) Workman Compensation Act: On a regular basis activities related to workman compensation act is undertaken.

xi) Certification of dead bodies at Railway Stations, Railway Yards, Railway lines, etc. is being done on a regular basis.

xii) Certification of perishable goods in Railway Station and their disposal as per requirement.

2. Functions related to Medical treatment to Railway beneficiaries. Total comprehensive Medical treatment is provided by Indian Railway Medical Department are.

A) Curative health care: It has three levels :

1) Primary level, 2) Secondary level

B) Preventive health care:

C) Promotive health care.

D) Rehabilitative health care

**Mission Statement:** Total Patient Satisfaction through Humane approach and Shared commitment of every single Doctor and Paramedic to provide Quality health care using Modern and cost effective techniques and technologies.

**Table No 2 Health Care Service in Indian Railways:**

Number of existing Hospitals	135
Number of Health Units	586
Number of beds (indoor)	14,023
Number of Medical Officers (Doctors)	2,506
Number of Paramedical staff	57,000
Number of Group B officers	194
Budget Estimate for the year 2015-16	Rs 2477 crores

From the Table No. 2 the Health care service in Indian Railway is described with number of existing hospitals, numbers of Doctors and paramedical staffs etc.

**Table No. 3 Performance of the Railway Hospitals of SECR**

Total No. of Employees	14,2000
Total No. of RELHS card holders	2,80,000
Total No. beneficiaries	65,20.000
Total No. of OPD cases attended	27,20,000
Total No. of Indoor cases	4,82,000
Total No. of Major surgeries	44,000
Bed occupancy ratio (BOR)	70 %
Average length of stay (ALS) (in days)	5 days
Percentage of Man days loss (RMC+ HOD)	< 2 days
Percentage of Man days loss (PMC)	< 5 days
No. of new candidates examined for fitness	70,000 Approx.
No. of employees undergone Periodical medical examination	1,45,000
No. of Medical Board Examined	5000 Approx
No. of food samples collected under PFA Act	20,000 Aprox
No. of Water samples examined for Residual Chlorine	7,00,000 approx
No. of Water samples examined for bacteriological test	60,000 Approx
No. of Inspection done by Medical Officers	10,000 Approx
No. of Passengers provided medical aid during journey/ at Station/ Yard etc.	20,000 Approx

From the Table no. 3 the performance of the Railway hospital of SECR can be seen.

**Medical Facilities For Retired Employees:** The Indian Railways not only provides the best comprehensive health care service to its employees, it also provides the health service in the same level to its retired Railway employees known as Retired Employees Liberalized Health Scheme, also subjected to certain conditions, that is the Railway employee must have completed 20 years of service, the employees who have resigned from service are not eligible.

**Conditions for Availing Health Care Service By The Retired Employees:**

One time contribution equal to last month Basic Pay to be made at the time of retirement.

Members of existing RELHS scheme will automatically become member without any fresh payment. Option to join may be given 3 months before retirement.

Retired employees and spouses of deceased retired Railway employees may by paying an amount equal to all monthly contribution due under RECHS from date of retirement to date of joining RELHS in addition to equalized Basic Pay at the time of retirement as per successive pay Commission’s recommendations.

**Medical and Health Care**

Indian Railways has an extensive network of hospitals and clinics. There are specialized hospitals for cancer (Varanasi), heart diseases (Chennai), orthopedics (Kolkata) and Plastic surgery (Mumbai). In addition, 150 private hospitals are recognized for treatment for higher secondary and tertiary treatment which is free and cashless. Railway employees do go to

Medical Colleges and specialized treatment centres in life saving emergencies and expenses are reimbursed. Indian Railways have their own Family Planning and Family Welfare centers to look after health of mothers and children.

### **Medical Certificate**

During the course of duty or otherwise if an employee feels sick and is not able to do his Duty then the employee has to take a sick memo from the office concerned and report to Doctor. Doctor after examining the employee may issue a sick certificate if he feels or gives medicines and asks him to join duty. A sick Railway employee cannot leave headquarters without permission of Doctor. When he is fit for duty Doctor will issue him a Fit Certificate. In case a Railway employee taking treatment from a Private Doctor or report sick away from Headquarters he should report to Railway Doctor in the area. If no Railway Doctor is available within 2.5 km of his headquarters or within 1 km in case working outstation then Private Medical Certificate produced by him will be accepted if there is no doubt.

### **Details of the employees (sample) under study:**

Frequency test in Table No. 4 revealed that the male respondent exceeds the female with 82% against 18%. Substantial number of respondents was between 40-45 years old, followed by the respondents of age group 56 and above which is 22% and the age group of 22-39 is also 22%, whereas the age group between 18-25 was found to be only 7%. The annual earnings of the respondents revealed that 70% of the respondents earn below 5 lakh rupees, 24% earns between 5-10 lakh rupees and 6% earns between 10-15 lakh rupees. The educational profile of the respondents revealed that 48% are having educational qualification of +2 and below, 42% are found to be Graduate and 10% were Post-graduate. The Marital status of the respondents revealed that 92% were married and 8% were un-married. 52% of the respondents were found to have performed service between 10-30 years, followed by 26% who have performed service more than 30 years, 18% have performed service below 10 years and 4% were found to be retired from service. 54% of the respondents were having Railway accommodation, while 42% were having their own house and 4% were living on rented accommodation. 52% of the respondents are living within the distance of 1-5 Km from the hospital, 38% are living within 1Km, and 10% are living between 5-10 Km from the hospital. It was found that 100% of the respondents preferred treatment in the Railway hospital rather going to other Government hospital or Private hospital.

**Table No. 4 Frequency Table: Distribution of Employee attributes**

Sr No	Attribute	Distribution	Frequency	Percentage
1	Gender	Male	82	82
		Female	18	18
2	Age Group	18 – 35	07	07
		26 – 39	22	22
		40 – 45	49	49
		57 & above	22	22
3	Annual Earning	Below 5 lakhs	70	70
		5 – 10 lakhs	24	24
		10 – 15 lakhs	06	06
4	Educational qualification	+2 & below	48	48
		Graduate	42	42
		Post Graduate	10	10
5	Marital Status	Married	92	92
		Un-married	08	08
6	Years of Service performed	< 10 Years	18	18
		10 – 30 Years	52	52
		> 30 Years	26	26
		Retired	04	04
7	Type of Accommodation	Railway Quarter	54	54
		On Rent	04	04
		Own House	42	42
8	Distance of Hospital from Residence	<1 Km	38	38
		1 – 5 Km	52	52
		5 – 10 Km	10	10
9	Preference of Treatment	Railway Hospital	100	100
		Other Govt. Hospital	00	00
		Private Hospital	00	00



### Limitations of study:

The study may suffer from the following limitations:

1. Study is based upon data collected from the employees of SECR, Bilaspur, which may not be generalized for employees of the whole Indian Railways.
2. Correctness of the survey is subjected to the correctness of the respondents.
3. Study is based on sample survey therefore it has some inherent shortcomings of a sample study.
4. Employees may have some personal reasons for not responding to some of the questions.

### Data analysis:

In the present study, a survey conducted on the employee satisfaction regarding the availability of the medical treatment in the Central Hospital, Bilaspur of SECR and its different aspects. Survey conducted on 100 numbers of employees in the premise of the Central Hospital, Bilaspur, and South East Central Railway. Data analysis in the present study is based on testing of hypothesis, finding the relationship between the variables and analysis of variables on the basis of mean and percentage scores.

### Result of Hypothesis Testing:

**Ha1:** There was homogeneity of variance for satisfaction score for male and female, as assessed by Levene's test for equality ( $p = .651$ ). The result of independent sample t-test implied that there were no statistically significant difference in satisfaction level between the male and female.  $t(98) = 1.531, p = .129$

**Ho2:** The result of one-way ANOVA implied that there were statistically differences in satisfaction level as different age groups of the employees.  $F(3, 96) = 8.864, P < .0005$ .

**Ha3:** The result of one-way ANOVA implied that there were no statistically differences in satisfaction level as per the annual earning of the employees.  $F(2, 97) = 1.056, p = .352$

**Ho4:** The result of one-way ANOVA implied that there were statically differences in the satisfaction level as per educational qualification of the employees.  $F(2, 97) = 17.570, p < .0005$

**Ho5:** The assumption of homogeneity of variance was violated as assessed by Levene's test for equality of variance ( $p = .008$ ). The result of Independent sample t-test (Welch t-test) implied that there were statistically significant differences in satisfaction level between married and unmarried groups.  $T(7.498) = 2.516, p = .038$

**Ho6:** The result of one-way ANOVA implied that there were statistically significant differences in satisfaction level as per the length of service of the employees.  $F(3, 96) = 8.864, p < .0005$

**Ho7:** The result of one-way ANOVA implied that there were statistically significant differences in satisfaction level as per the types of accommodation of the employees.  $F(2, 97) = 9.486, p = .0005$

**Ho8:** The result of one-way ANOVA implied that there were statistically significant differences in satisfaction level as per the distance of residence from hospital.  $F(2, 97) = 3.848, p = .024$

Table No 5: Descriptive analysis on Satisfaction dimension

Sr No.	Rating Scale	Below Average	Average	Good	Very Good	Outstanding	Mean Score	SD
1	Cleanliness of the Hospital	0	3	0	20	77	4.71	.624
2	Cleanliness of the Toilets	0	3	13	34	50	4.31	.813
3	Availability of Drinking Water	0	16	26	25	33	3.75	1.086
4	Availability of Lights and Fans	0	9	37	26	28	3.73	.973
5	Availability of Sitting arrangement	0	22	25	30	23	3.54	1.077
6	Time taken for Registration	0	11	49	24	16	3.45	.892
7	Time taken by Doctor to attend	0	4	19	60	17	3.90	.718
8	Behavior of Doctor	0	3	18	23	56	4.32	.875
9	Behavior of Hospital staff	0	4	25	57	14	3.81	.720
10	Behavior of Nursing staff	0	4	30	57	9	3.71	.686
11	Behavior of Clinical staff	0	9	27	51	13	3.68	.815
12	Availability of Medicines	0	3	1	49	47	4.40	.667
13	Availability of Pathological test	0	1	38	43	18	3.78	.746
14	Availability of X-ray/ Ultra sound	0	4	42	42	12	3.62	.749
15	Provision of Canteen	29	44	11	9	7	2.21	1.166
16	Availability of Emergency Measures	8	28	37	13	14	2.97	1.141
17	Timing of the Hospital	0	8	52	24	16	3.48	.858
18	Overall Rating	0	3	18	60	19	3.95	.702

It is observed from the Table No. 5 that all the 18 dimensions taken for study has a mean score on a higher note (<3). The dimensions with lowest mean value are for the provision of Canteen and availability of Emergency measures, where the mean score stands at 2.21 and 2.97 respectively. The above analysis suggest that except for the two attributes, i.e. Provision of the Canteen and availability of emergency measures, the Railway employees those are availing the medical facility are keenly satisfied with the rest of the dimensions of the Railway medical facilities provided at the Railway Hospital. The mean score of 3.95 of the overall rating satisfies the healthy condition of the Railway medical services provided by the Railway to its employees.

**Suggestions:**

1. Hypothesis testing result signifies that there is no statistically significant difference in the satisfaction level of the gender and as per the annual earning of the employee.

2. Hypothesis result also signifies that there were statistically significant exist in the satisfaction level of different age groups, educational qualification, marital status, length of service, accommodation and the distance of the residence from the hospital of the employees.
3. There lies a gap with respect to the provision of canteen and availability and availability of emergency measures, both should be strengthened.
4. Focus should be laid to help the employees those are availing Railway medical facilities by the Hospital staff as much as possible.

**Conclusion:**

Indian Railways employees belong to a very hard working cadre; they work round the clock throughout the year, posted in remote locations in isolated places, therefore the Railway administration always takes care of them by providing all the necessary amenities like free medical treatment in every possible means to help them. This survey report reflects that none of the Railway employees want to be treated outside Railway hospitals i.e. in other Government or Private Hospitals. Hypothesis study revealed no significant difference between the groups under study. However the quality and quantitative aspect of services and amenities of the Railway hospital found to be of desirable level. The result determines that the overall satisfaction gained by the Railway employees towards the Railway medical service is desirable in nature.

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